SEDGE CREEK BRIDGE
Yellowstone Roads and Bridges
Spanning Sedge Creek on East Entrance Road
Yellowstone National Park
Park County
Wyoming

HAER No. WY-35

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WYO
15-YELNAP,
15-

BLACK & WHITE PHOTOGRAPHS

WRITTEN HISTORICAL & DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, DC 20013-7127

Rocky Mountain Regional Office
National Park Service
U.S. Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN ENGINEERING RECORD

SEDGE CREEK BRIDGE
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Location:	Spanning Sedge Creek on East Entrance Road, 8.4 miles west of the east entrance, Yellowstone National Park, Teton County, Wyoming UTM: Canyon Village, WY, Quad. 12/557200/4930000
Date of Construction:	1935
Owner:	Yellowstone National Park, National Park Service
Use:	Vehicular bridge
Designer:	Architectural plans by W.G. Carnes, Branch of Plans and Design, National Park Service; General plans and specifications by E.T. Larson, Bureau of Public Roads
Builder:	Undetermined
Significance:	Sedge Creek Bridge typifies the early design philosophy of the National Park Service, which was to use indigenous materials to harmonize man-made features with their natural surroundings. This philosophy is embodied in many of the park's Rustic Style buildings and structures.
Project Information:	Documentation of Sedge Creek Bridge is part of the Yellowstone Roads and Bridges Recording Project, conducted during the summer of 1989 by the Historic American Engineering Record, a division of the National Park Service, under the co-sponsorship of Yellowstone National Park, the NPS Roads and Bridges Program, and the NPS Rocky Mountain Regional Office, Denver. Historical research and written narrative by Mary Shivers Culpin, Historian, NPS Rocky Mountain Regional Office. Engineering description by Steven M. Varner, Virginia Polytechnic Institute. Edited and transmitted by Lola Bennett, HAER Historian, 1993.

HISTORY OF EAST ENTRANCE ROAD

(See HAER WY-25, Cub Creek Bridge.)

DESCRIPTION

Sedge Creek Bridge was built in 1934 as part of a major road relocation and reconstruction project on the East Entrance Road. The bridge is a concrete deck girder with masonry abutments. The single-span bridge has a 32-foot span length and a total length of 68' from end of wing wall to end of wing wall. Span length is measured from center of support to center of support. The deck width is 28' while the bridge roadway is 24', curb-to-curb.[1]

The design load was 15 tons. The bridge rises from the southeast to the northwest at a grade of 2.897 percent. There is a 3-inch camber between abutments, and the bottom of the slab is on a radius of 400'. The bottom of the slab is approximately 5' from normal water elevation of 7,736 feet. The slab is 1'-7" thick at the middle of the bridge and 2' thick near the abutments. The curb is 9" above the concrete deck. The side and bottom of the slab was stained with three coats of Copperas. The forms of the slab were of band-sawed rough lumber. The slab is covered with 3" of asphalt.[2] The slab is reinforced transversely with thirty-two ⅝-diameter bars near the top and bottom of the slab. It is reinforced longitudinally with 1½-square-inch deformed bars. There are forty-one bars near the top of the slab and fifty-five near the bottom.[3]

The guard rails are composed of 10"-diameter log posts, 8' on center. These posts are 2'-1" above the curb and are sunk into 8"-diameter pipes which are sunk into the curb and deck approximately 1'-6". The guard rail itself is an 8"-diameter log, 4" from the top of the posts on the roadway side. A ¾"-diameter galvanized iron bolt countersunk on the roadway side holds the rail onto the posts.[4]

The abutments batter 2:12 by stepping out each individual stone on all sides except the southeast transverse side where the batter is 1:12.[5] The abutments batter 3½:12 on all insides except the southeast transverse side where the batter is 4½:12.[6]

The estimated quantities of materials used in the bridge were as follows:

Excavation	575 cu. yds.
Class "D" Concrete	63 cu. yds.
Reinforcing Steel	18,400 lbs.
Masonry	385 cu. yds.

The class of concrete refers to the proportion of cement in the mix with "A" having the highest cement proportion and being the strongest.[7]

ENDNOTES

1.U.S. Department of Transportation, Federal Highway Administration, Western Division, Bridge Inspection Report, Sedge Creek Bridge, 6 August 1986.

2.Office of National Parks, Buildings and Reservations, Branch of Plans and Design, Architectural Plans, Sedge Creek Bridge, 8 January 1934.

3.U.S. Department of Agriculture, Bureau of Public Roads, Bridge over Sedge Creek Plans, December 1933.

4.Architectural Plans for Sedge Creek Bridge, 8 January 1934.

5.Ibid.

6.Sedge Creek Bridge Plans.

7.Ibid.